

IN THE CLAIMS:

Please note that all claims currently pending and under consideration in the referenced application are shown below. This listing of claims will replace all prior versions and listings of claims in the application.

Please amend claims 1 through 4, 15 through 19 and 21 through 23 as set forth below.

Listing of Claims:

1. (Presently Amended) An apparatus for routing interconnections among bond pads on a semiconductor die, comprising:
a sheet-like, nonconductive structure having a first surface, and a second, opposing surface for attachment to ~~said~~ the semiconductor die; and
a plurality of electrically conductive discrete pads attached to ~~said~~ the first surface, the plurality of electrically conductive discrete pads each having an electrical connect portion and an electrically isolated portion comprising a portion facing ~~said~~ the first surface and a periphery defined thereabout.
2. (Presently Amended) The apparatus of claim 1, further comprising at least one conductor extending between at least two of ~~said~~ the plurality of electrically conductive discrete pads, ~~said~~ the at least one conductor including at least a portion external to ~~said~~ the sheet-like nonconductive structure.
3. (Presently Amended) The apparatus of claim 1, further comprising at least one conductor extending from at least one bond pad of ~~said~~ the die to at least one of ~~said~~ the plurality of electrically conductive discrete pads.
4. (Presently Amended) The apparatus of claim 1, wherein ~~said~~ the nonconductive structure is comprised of a dielectric film or sheet.

5-14. (Canceled)

15. (Presently Amended) A semiconductor device, comprising:
a die including a plurality of bond pads disposed on a surface thereof and a plurality of
conductive bumps, each being disposed on one of the plurality of bond pads;
an adapter adhered to the surface of the die, the adapter having a first plurality of discrete
electrical contacts on a first surface thereof, each of the first plurality of discrete electrical
contacts being contiguous with ~~electrically connected to~~ one of ~~said- the~~ plurality of ~~bond~~
~~pads~~ conductive bumps, and a second plurality of discrete electrical contacts on a second
surface thereof, each of ~~said- the~~ second plurality of discrete electrical contacts having an
electrical connection portion and an electrically isolated portion comprising a portion
facing ~~said- the~~ second surface of ~~said- the~~ adapter and a periphery defined thereabout, at
least some of ~~said- the~~ second plurality of discrete electrical contacts in electrical
communication with ~~said- the~~ first plurality of discrete electrical contacts; and
a second plurality of conductive bumps, each extending from one of ~~said- the~~ second plurality of
discrete electrical contacts.

16. (Presently Amended) The semiconductor device of claim 15, further comprising a
protective coating over at least a portion of ~~said- the~~ die and at least a portion of the adapter, ~~said~~
the plurality of conductive bumps being at least partially exposed through ~~said- the~~ protective
coating.

17. (Presently Amended) A semiconductor device, comprising:
a die including a plurality of bond pads disposed on a first surface thereof;
an adapter adhesively secured to the die, the adapter having a first plurality of discrete electrical
contacts on a first surface thereof, each electrically connected to one of ~~said- the~~ plurality
of bond pads, and a second plurality of discrete electrical contacts on a second surface

thereof, at least some of ~~said~~ the second plurality of discrete electrical contacts being horizontally remote from at least some of the plurality of bond pads disposed on the first surface of the die, the at least some of ~~said~~ the second plurality of discrete electrical contacts having an electrically isolated portion comprising a portion facing ~~said~~ the second surface of ~~said~~ the adapter and a periphery defined thereabout, and at least some other of ~~said~~ the second plurality of discrete electrical contacts being electrically connected to ~~said~~ the first plurality of discrete electrical contacts.

18. (Presently Amended) The semiconductor device of claim 15, wherein the adapter comprises a material having a coefficient of thermal expansion substantially matching a coefficient of thermal expansion of ~~said~~ the die.

19. (Presently Amended) The semiconductor device of claim 15, wherein the adapter comprises at least one conductive via extending between at least one of the first plurality of discrete electrical contacts and at least one of the at least some other of ~~said~~ the second plurality of discrete electrical contacts.

20. (Previously Presented) The semiconductor device of claim 19, wherein at least one of the second plurality of discrete electrical contacts is electrically isolated from the plurality of bond pads disposed on the first surface of the die.

21. (Presently Amended) The semiconductor device of claim 15, further comprising a layer of adhesive between ~~wherein the adapter is adhesively secured to~~ and the die.

22. (Presently Amended) The semiconductor device of claim 17, wherein the adapter further comprises a sheet-like, nonconductive structure and wherein the first plurality of discrete electrical contacts is disposed on a first surface of the sheet-like nonconductive structure and,

wherein the second plurality of discrete electrical contacts is disposed on a second, opposing surface of the sheet-like nonconductive structure ~~is adhesively secured to the die.~~

23. (Presently Amended) The semiconductor device of claim ~~17~~ 22, further comprising a plurality of conductive vias extending through ~~said~~ the adapter electrically connecting ~~said~~ the first plurality of discrete electrical contacts and the at least some other of the second plurality of discrete electrical contacts.

24. (Original) The semiconductor device of claim 17, wherein the adapter comprises a tape-like structure.

25. (Original) The semiconductor device of claim 17, wherein at least one of the second plurality of discrete electrical contacts is electrically interconnected with a second die.